## OBSERVATIONS ON THE HABITS OF SOME WESTERN LONGICORN BEETLES

(Coleoptera, Cerambycidæ) BY E. GORTON LINSLEY University of California

Although the Cerambycidæ is a group that may be of considerable economic importance, comparatively little is known of the life histories or habits of a great many of our commonest western species, and the following random observations may therefore prove of interest.

## METHIA and STYLOXUS

The habits and food plants of our Californian Methiini have been largely problematical. The adult beetles are rarely captured (usually at light). Information at hand, however, indicates that the larvæ are twig girdlers. A few years ago the writer reared Methia arizonica Schffr. from girdled branches of mesquite (Prosopis) and Mr. A. T. McClay has recently established the host plants of three additional species. Mr. McClay reared Styloxus californicus (Fall) from small twigs of live oak (Quercus agrifolia) and S. bicolor Champ. & Knull as well as an undescribed species of Methia from California Juniper (Juniperus californica). The larval work of these species is somewhat similar to that of many of the Elaphidionini. The larvæ girdle the small twigs in which they bore, feeding in the girdled portion. The girdled twigs, when not broken off by the wind, are very conspicuous against the green foliage of the tree. When brought indoors and caged, Styloxus usually requires two years to mature. Whether or not this is the normal development period in nature has not been established.

## ATIMIA DORSALIS LeConte

This species has long been known to breed in various cupressine trees (*Cupressus*, *Juniperus*, *Libocedrus*, *Sequoia*, etc.). Throughout most of its range there is only one brood each year. Eggs are deposited in spring and early summer in cracks and crevices of the bark of recently dead wood and the larvæ mine in the cambium, just beneath the bark, and pupate in the heart-

wood. Transformation takes place in the fall and emergence in the spring. In the coastal area of Southern California, however, observations made by Mr. K. D. Sloop and the writer indicate that there are two broods a year. In this region the Monterey Cypress (Cupressus macrocarpa) has been used for many years as an orchard wind-break and an ornamental shrub. The largest brood appears in late fall (October and November) and during these cold months the insects are very abundant upon the cypress. They usually attack plants which have been weakened by adverse moisture conditions or by barkbeetle (Phlcosinus cupressi) attack, but occasionally injure apparently healthy trees. The larval habits become somewhat modified when feeding in living trees, and they usually work more deeply in the wood. So severe has been the attack of Atimia and Phlæosinus in this area that cypress is being largely replaced as a windbreak by Eucalyptus.

## ACMAEOPS and CORTODERA

Very few observations have been recorded upon the habits of the Lepturini of western United States. Most of the known species feed in damp decaying wood, a very few in living trees, but regarding the large group which includes Acmeops and Cortodera, little has been known. In an attempt to learn something of the biology of these genera, the writer discovered that the larvæ of two species (A. tumida Lec. and C. spuria Lec.) feed upon the roots of buttercup, Ranunculus californicus, in the foothill regions near San Francisco Bay. The young larvæ apparently bore within the roots, but the older larvæ roam freely through the soil, feeding externally. Pupal cells are formed in the soil an inch or so below the surface. Transformation occurs in early spring and the adults emerge when the buttercups are in blossom (March and April). Acmeops tumida usually appear a week or ten days after the first examples of C. spuria have emerged, and may be found after the last of the latter species has disappeared. Adults of both species feed upon pollen of the buttercup and mating occurs on the flowers of this plant.